REMARKS

The Examiner's Action mailed on Oct. 10, 2006, has been received and its contents carefully considered. Additionally attached to this Amendment is a Petition for a One-month Extension of Time, extending the period for response to February 10, 2007.

In this Amendment, Applicants have amended claims 1, 5, and 32, and canceled claims 3, 4, 6- 8, 34, 35, and 50-76. Claims 16-31 are withdrawn. Claims 1 and 32 are the independent claims, and claims 1, 2, 5, 9-15, 32, 33, 36-49 remain pending and under consideration in the application. For at least the following reasons, it is submitted that this application is in condition for allowance.

Claims 3, 34 and 50-76 were rejected under 35 U.S.C. §112, ¶1 as failing to comply with the enablement requirement. Due to the cancellation of claims 3, 34 and 50-76, the rejection should be respectfully withdrawn.

Claims 1-15 and 32-76 were rejected under 35 U.S.C. §112, ¶2 as indefinite. This rejection is respectfully traversed for reasons discussed below with regard to the rejection of claims 1, 3-15, 32 and 34-76 under 35 U.S.C. §103(a).

Claims 1 and 32 were rejected under 35 U.S.C. §102(b) as being anticipated by Tang, Ming-Chung; Chang, R. C.; Shih, Wei-kuan; "Software Radio System Design for Accessing Wireless Multimedia Services", Dept of Computer Information Science, National Tsin-Hua University, Taiwan, pp. 1-12 (*Tang*).

However, *Tang* was first published in December 2001 (please refer to the attachment - Information of the citation), which is less than one year before the US filing date, January 29, 2002, of the application. Therefore, *Tang* is inapplicable to claims 1 and 32, and the rejection should be respectfully withdrawn.

Please also note that *Tang* is not a printed publication "before the invention thereof by the applicant for patent", as there are two common authors and inventors between *Tang* and the present application, and therefore *Tang* could not be applied under 35 U.S.C. §102(a) as an alternative to §102(b).

Claims 1, 3-15, 32 and 34-76 were rejected under 35 U.S.C. §103(a) as being unpatentable over Das, S. K.; Jayaram, R; "A Call Admission and Control Scheme for Quality-Of-Service (QoS) Provisioning in Next Generation Wireless Networks", 2000, Wireless Network, 6, 1, ABI/INFORM Global, p. 17 (*Das*). This rejection is respectfully traversed.

Applicant's amended claim 1 recites:

> 1. An apparatus for quality-of-service-controllable real-time scheduling, the apparatus comprising:
> a regulator for receiving a plurality of tasks for the apparatus according to a first set of parameters;
> an on-line scheduler, being coupled to the regulator and having a reservation list, the on-line scheduler being for receiving at least part of the tasks, wherein the number of the tasks which are inputted to the on-line scheduler are adjusted by the regulator, each of the tasks comprises a mandatory portion and an optional portion, the on-line scheduler is adapted to schedule time intervals **in the reservation list** for the mandatory portions of the inputted tasks according to the deadlines of the inputted tasks to be executed, the on-line scheduler is adapted to selectively schedules time intervals **in the reservation list** which are not occupied by the mandatory portions for the optional portions of the inputted tasks, and the on-line scheduler is adapted to

remove the portions from the reservation list sequentially according to the order of the portions in the reservation list; and

an evaluator, coupled to the regulator and the on-line scheduler, for evaluating a scheduling result of the on-line scheduler, feeding the first set of parameters into the regulator for a coarse adjustment, and feeding a second set of parameters into the on-line scheduler for a fine adjustment in which the proportion of the optional portions scheduled in the reserved list is controlled.

Firstly, although the sentence "each of the tasks comprises a mandatory portion and an optional portion" is added in claim 1, which is recited similarly in claim 3 and 34 which are rejected as failing to comply with the enablement requirement, applicant's amended claim 1 is enabled.

Paragraph [0007] of the specification defines "task" in lines 7-11 thereof: "For instance in the network layer, transmitting a packet is regarded as a task in a real-time system. For instance in the application layer, sending a file is considered as a task in a real-time system. For a real-time operating system, a program module waiting to be executed is a task in a real-time system as well."

In addition, paragraph [0012] recites "On the other hand, though a task is assigned to be important and processed as the highest priority, not all of the data in the task have equal importance. If only a portion of data in the task is important, the router is unnecessary to regard all of the data in the task as important data to be processed. It only needs to process the important portion of data in real-time. For example in a router with packet transmission mechanism, for the highest priority task, not all of the packet are necessary to be sent to the receiving end so as to make the receiving end process the task. Sending the

important portion of data to the receiving end is sufficient to make the receiving end process the task. In the way, it is unfair that the network resource is used to process the unimportant portion of the task with the highest priority so that the other tasks are not to be processed" (emphasis added by underlining).

Paragraph [0018] of the disclosure, lines 5-8, notes that: "Each of the tasks to be scheduled is divided into two portions: mandatory portion and optional portion. The mandatory portion of a task is required to be executed while the optional portion of the task need not be executed and may be discarded partially or completely". A person skilled in the art would therefore understand how to split the task between the mandatory portion and the optional portion.

Thus, the invention defined by claim 1 complies with the enablement requirement.

Secondly, it is submitted that claim 1 is patentable over *Das* for at least the following reasons.

As shown in Figure 2 of *Das*, the real time packets are sent to the "Real time packet queue", while the non-real time packets are sent to the "Non-real time packet queues". *Das* fail to disclose "each of the tasks comprises a mandatory portion and an optional portion, the on-line scheduler is adapted to schedule time intervals **in the reservation list** for the mandatory portions of the inputted tasks according to the deadlines of the inputted tasks to be executed, the on-line scheduler is adapted to selectively schedules time intervals **in the reservation list** which are not occupied by the mandatory portions for the optional portions of the

inputted tasks, and the on-line scheduler is adapted to remove the portions from the reservation list sequentially according to the order of the portions in the reservation list", as recited in Applicant's amended claim 1.

Therefore, the invention defined by applicant's claim 1 is patentable over *Das*. The invention defined by applicant's claim 32, which recites similar features to claim 1, is also patentable over *Das*. It is respectfully suggested that the above rejection under 35 U.S.C. 103(a) should be withdrawn.

Claims 2 and 33 were rejected under 35 U.S.C. §103(a) as being obvious over *Das* in view of Bragg, Arnold: "Quality-Of-Service, Old Idea, New Options", September/October 1999, IT Pro, 1999, (c) IEEE, p.p. 37-44 (*Bragg*). This rejection is respectfully traversed.

Claims 2 and 33 depend from claims 1 and 32 respectively, and as *Bragg* fails to overcome the deficiencies of *Das* with respect thereto, claims 2 and 33 are therefore also allowable.

As such, it is submitted that Applicants' independent claims 1, as well as the claims 2, 5, and 9-15 dependent therefrom, and independent claims 32, as well as the claims 33, 36-49 dependent therefrom are patentable over *Das*. It is submitted that the application is in condition for allowance.

If the Examiner believes that a further conference would be of value in expediting the prosecution of this application, the Examiner is hereby invited to telephone the undersigned counsel to arrange for such a conference.

Should the remittance be accidentally missing or insufficient, the Commissioner is hereby authorized to charge the fee to our Deposit Account No. 18-0002, and advise us accordingly.

Respectfully submitted,

February 12, 2007
Date

Alun L. Palmer – Reg. No. 47,838
RABIN & BERDO, PC – Cust. No. 23995
Facsimile: 202-408-0924
Telephone: 202-371-8976

ALP/atl

Attachment
Information of the citation

(A) The information of the document: "Software radio system design for accessing wireless multimedia services" (Citation "Tang").

Software radio system design for accessing wireless multimedia services

Source	**Information processing and technology** table of contents Pages: 63 - 80 Year of Publication: 2001 ISBN:1-59033-116-8	
Authors	Ming-Chung Tang	Department of Computer Science, National Tsing-Hua University, 101 Kuang Fu Rd, Sec.2, HsinChu 30043, TAIWAN
	R. C. Chang	Department of Computer Information Science, National Chiao-Tung University, 1001 Ta Hsueh Rd, HsinChu 30050, TAIWAN
	Wei-Kuan Shih	Department of Computer Science, National Tsing-Hua University, 101 Kuang Fu Rd, Sec.2, HsinChu 30043, TAIWAN
Publisher	Nova Science Publishers, Inc. Commack, NY, USA	

http://portal.acm.org/citation.cfm?id=766914.766919

(B) The information of the Book "The Information processing and technology"

Information Processing and Technology (Hardcover)

by Nikas Mastorakis (Editor), Stavros D. Nikolopoulos (Editor)

Product Details

Hardcover: 177 pages

Publisher: Nova Science Pub Inc (December 2001)

Language: English

ISBN-10: 1590331168

ISBN-13: 978-1590331163

Product Dimensions: 0.8 x 6.2 x 9.2 inches

Shipping Weight: 15.20 ounces (View shipping rates and policies)

http://www.amazon.com/exec/obidos/ASIN/1590331168/acmorg-20